

outside of the knot. Every day the plate is turned once or twice like a tourniquet so that it becomes tightened gradually from all sides and little by little it cuts the skin and membrane and enlarges the hole toward the testicle where pus forms. At the same time the area which has been stretched or dilated by the hernia becomes fibrosed by the application of compresses and poultices and in the meantime within ten to fifteen days, the thread has completely severed the tissues contained in it. Precautions must be taken to allow a good cicatrix to form and to harden into a callus, taking care that there is no relaxation in the new scar which would favor recurrence. By this method there is no fear that the veins will open." Is it any wonder that the people gave him an opportunity to call them "cowardly and soft"?

In the long series of chapters Severinus discusses and illustrates by cases the treatment of plagues, ulcers, tumors, adherent eyelids, strictures, laryngotomy, umbilical hernia, hypospadias, phimosis, imperforate hymen, simple fistulae, spreading whitlow, herpes and other types of ulcers, obstinate cicatrix, bite of mad dog, polyps, condyloma, corns on foot, nymphotomy, ingrowing nails, amputations and sections of nerves, muscles and tendons and their suture.

OPERATIONS ON THE SKULL

The last chapter deals with trephining, which was in use at that time for simple migraines, for mania, or for diseases of the eyes. Severinus successfully eradicated a so-called fungus tumor of the dura mater from the Spanish nobleman Avalos, who was afflicted with intolerable headaches which no remedy could appease. It was proposed to the patient to trephine the cranium, an operation to which he consented. This proceeding brought into view under the bone a "fungous excrescence," the destruction of which proved a permanent cure of the violent pains which the disease had occasioned. Is it possible that this was the first successful extirpation of a brain tumor?

The apparent boldness and daring of Severinus was emphasized by the general timidity of the surgeons of his day and he boastfully records feats of successful surgery which, in another age, would have been most simple. He was well read in the Greek-Arabian surgery and used the actual cautery extensively. Born in 1580 he died of the plague in 1656, a year before the death of Harvey.

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CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

THEOPHYLLIN-ETHYLENEDIAMIN FOR CARDIAC PAIN*

REPORT OF CASES

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SELF-PRESERVATION is one of man's primal instincts, and pain is perhaps the most prominent sensation which calls this instinct to the fore. Perhaps it is this combination which gives pain in so vital an organ as the heart its terrifying character. Or perhaps, thinking behavioristically, it may be merely the reaction of the autonomic nervous system without conscious cerebration. Whatever the cause, pain of cardiac origin is of great importance to the clinician.

Of the drugs used for the relief of this symptom, perhaps the nitrites and the xanthin derivatives are the most often used. The peripheral vasodilating action of the nitrites is transitory, the longest effect being obtained from erythrol tetranitrate, which has the disadvantage of causing severe headaches. The real rôle of the nitrites is the lowering of a high blood pressure when an apoplexy seems imminent, or in the actual attack of angina pectoris.

The xanthin derivatives, more specifically, caffeine, theobromin, theophyllin and their salts, also bring about a peripheral vascular relaxation, but the organs most affected vary with the drug used. Caffeine exerts more a central (cerebral and medullary), theophyllin a peripheral, effect, and theobromin is intermediate. Theophyllin has the strongest renal and coronary vascular effect,⁵ and is of some use in the treatment of the conditions causing cardiac pain, but in the main it is disappointing. Theominal, a combination of theobromin and luminal, is better, but this also often disappoints. Luminal, much used in hypertension cases, also has a peripheral vascular dilating action.

Although mention of theophyllin-ethylenediamin, or euphyllin, was made in the literature at least as early as 1908,¹ only comparatively recently has it received any appreciable notice in the American literature. Recently, Musser² said that euphyllin action is apparently due to the theophyllin content alone, yet he also says that, of all the xanthin group, theophyllin-ethylenediamin possesses the greatest coronary-dilating power. Guggenheimer⁴ states that the action of euphyllin is explained by "a considerable acceleration of the flow of blood, even by the ethylenediamin component alone." Smith, Miller, and Graber⁶ state that euphyllin increases the perfusion rate of the

* Since the above was written, the trade name has been changed from euphyllin to metaphyllin.

intact heart from 40 to 90 per cent, this increase being independent of the accelerated heart action.

This marked coronary-dilating power, giving an increased blood supply to the myocardium, is readily appreciated by one in accord with Mackenzie's view that cardiac pain is due to myocardial ischemia. At any rate, euphyllin has been used for the relief of cardiac pain of all types, and reports are highly commendatory. The writer, from his own experience with this drug in private practice and in the Graves Dispensary of Los Angeles and the out-patient medical department of the Los Angeles County General Hospital, can testify to its efficacy in hypertensive heart disease, in occasional temporary heart strain, and in angina pectoris of the pseudotype or due to coronary sclerosis, as well as in the senile heart. Musser² quotes cases from the service of Dr. George Herrmann of coronary thrombosis which were greatly relieved by euphyllin. Guggenheimer³ has used it with success in cardiac dyspnea and asthma, as well as in heart block; and Musser² reports that this drug produces an actual fall in blood pressure in hypertension.

REPORT OF CASES

The following are a few illustrative cases:

CASE 1.—Senile heart disease. Male, aet. fifty-six, complained of dyspnea and precordial pain on slight exertion. Physical examination negative except for large build, with heart moderately enlarged. Blood pressure normal and laboratory work negative. Digitalis gave relief of dyspnea, but not of pain. In combination with theominal, there was also some relief of pain. Euphyllin without digitalis gave complete relief from pain except under exertion unusual to the patient.

CASE 2.—Hypertensive heart disease. Male, aet. sixty-three, complained of precordial constriction on exertion. Physical examination showed enlarged heart with blood pressure of 215/110. Laboratory work negative. One week on euphyllin, 0.1 gram t. i. d., gave freedom from distress.

CASE 3.—Temporary heart strain. Male, aet. forty-eight, obese, sedentary worker, heavy eater; heart size normal, blood pressure 128/80. Hiking in mountains with wrestlers resulted in precordial pain. Euphyllin, 0.1 gram t. i. d., relieved completely in two days.

CASE 4.—Angina pectoris due to coronary sclerosis. Male, aet. sixty-two, laborer, on slight exertion had precordial pain radiating in typical manner. Blood pressure moderately elevated. Peripheral vessels markedly sclerosed. Euphyllin, 0.1 gram t. i. d., relieved pain.

CASE 5.—Pseudo-angina. Female, aet. forty-eight, had pain of anginal type even without exertion and while resting in bed. Examination and laboratory work negative. Euphyllin gave marked relief in one week and complete relief in two weeks.

Euphyllin is available in suppository form, in ampoules for intramuscular or intravenous injection, and in 0.1 gram tablets for oral use. It is readily soluble in water, and is usually given in 0.1 gram doses t. i. d., but may be given in larger doses and more often. Euphyllin and digitalis may be given concomitantly. Through its theophyllin content, euphyllin has a diuretic action, and, though the German writers praise this highly, Christian⁷ does not rate it so well, although he does think it a good diuretic. Reports of its having been used continuously in the same patient

for years without evident harmful effect indicate its innocuousness.

The relief afforded by this drug is so marked that it deserves to become better known and to be quickly delivered from the relative obscurity in which it now rests.

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The Hospital and the Osteopath.—Doubtless the question has arisen in many cities as to whether osteopaths should have the right to treat their patients in the city hospital. The Buffalo City Hospital, New York, has recently released a letter replying to Howard B. Herdeg, D. O., in which he propounded the following questions:

1. Is there any rule or regulation of the Buffalo City Hospital which justifies the authorities of that institution in refusing to receive patients referred by licensed osteopathic physicians in Buffalo? If so, what does the regulation read? Who instituted it?
2. If the board of managers have made a rule or regulation which specifically states that patients shall not be admitted when referred by osteopathic physicians, will you, at the next meeting of the board, recommend that such rule or regulation be changed so that this discrimination against osteopathic physicians shall cease?
3. If the board of managers have made no rule which specifically discriminates against osteopaths, will you give an order to the various department heads of the Buffalo City Hospital to the effect that patients be admitted for hospitalization when referred by osteopathic physicians who are licensed to practice the healing art in New York State under the same conditions that control the admission of patients by other physicians?

The reply of the hospital was to the effect that any citizen or resident of the community may refer patients to the Buffalo City Hospital; also, sick persons are privileged to apply direct without having been referred by some individual. Only those physicians, however, may treat patients in the Buffalo City Hospital or receive appointment to its staff who are eligible for membership in the American Medical Association. "Were it not for the latter regulation we should lose our standing with the American Medical Association and the American College of Surgeons," the hospital stated after consultation with these organizations.—*The Pennsylvania Medical Journal*, January, 1929.